DOCUMENT RESUME

ED 216 523 FL 012 893

AUTHOR	Masciantonio, Rudolph; And Others
TITLE	Latin, The Language of Health Sciences. Teacher's Guide.
INSTITUTION	Philadelphia School District, Pa. Office of Curriculum and Instruction.
PUB DATE	82
NOTE	76p.
LANGUAGE	Latin; English
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	Audiolingual Methods; *Cultural Awareness; Elementary Secondary Education; *Etymology; *Health; *Latin; Medical Vocabulary; *Mythology; Second Language Instruction; Semantics; *Teaching Guides; Word Study Skills

ABSTRACT

This guide to an audio-lingual approach to Latin instruction is intended to assist Latin teachers and English teachers with background in Latin to expand the English vocabulary and reading skills of pupils through the study of Latin roots, prefixes, and suffixes. The content of this guide to health vocabulary introduces students to Latin and English word derivations and to the sources of medical terminology in classical mythology. The introductory material provides general notes on the teaching of Latin in the Philadelphia School District, suggestions for scheduling and staffing the Latin classes, an outline of the organization of each lesson, some general hints to the teacher, and an overview of the material to be taught in this unit. The material to be taught is presented in 11 lessons, a number of word games, and a unit review lesson. An annotated bibiliography completes the unit. (AMH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED216523

LATIN, THE LANGUAGE OF HEALTH SCIENCES

Teacher's Guide

Surgeon's tools found in Pompeii

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Rudolph Massi antonio

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

FL012 893

THE SCHOOL DISTRICT OF PHILADELPHIA
OFFICE OF CURRICULUM AND INSTRUCTION
DIVISION OF FOREIGN LANGUAGE EDUCATION

BOARD OF EDUCATION

THE SCHOOL DISTRICT OF PHILADELPHIA

Arthur W. Thomas, President

Mrs. Edward Oberholtzer, Vice President

Augustus Baxter

Samuel P. Katz

Joseph H. Previty

Samuel H. Rubin

Herman Mattlemen, Esq.

Mrs. Ernestine Rouse

Superintendent of Schools
Dr. Michael P. Marcase

Deputy Superintendent
Charles A. Highsmith

Associate Superintendent for Curriculum and Instruction
Dr. Bernard G. Keiner

Director of Foreign Language Education
Dr. Eleanor L. Sandstrom

Ass't. Director of Foreign Language Education
Dr. Rudolph Masciantonio

LATIN, THE LANGUAGE OF HEALTH SCIENCES

Teacher's Guide

T e n t a t i v e E d i t i o n

Division of Foreign Language Education
Office of Curriculum and Instruction
The School District of Philadelphia

Copyright, 1982
The School District of Philadelphia

TABLE OF CONTENTS

Foreword iv

Acknowledgements v

Introduction vi

I. General Notes on Teaching Latin in the Philadelphia School District vi

II. Utilization of this Guide vii

A. Scheduling vii

B. Staffing vii

C. Articulation with Other Materials viii

D. Organization of Each Lesson viii

E. General Hints of the Teacher ix

F. An Overview of the Material To Be Taught in This Unit ix

Lesson Profiles 1

Appendix: Annotated Bibliography 61

Evaluation Form for Curriculum Publications 63

FOREWORD

This guide is intended to assist Latin teachers and English teachers with background in Latin to expand the English vocabulary and reading skills of pupils through the study of Latin roots, prefixes and suffixes.

Recent research in various parts of the country has shown the significantly positive effect of the study of Latin on the vocabulary and reading skills of pupils of all backgrounds and abilities. Over 65% of the words in English come from Latin either directly or indirectly, including most literary and scientific terminology. Latin roots, prefixes, and suffixes provide the key to unlocking the meanings of these words. In addition, the inflected nature of the Latin language affords pupils the opportunity to acquire a linguistic perspective that is helpful in learning English.

This guide also is designed to familiarize pupils with aspects of classical culture and its impact; to introduce orally some basic Latin; and to stimulate interest in the study of languages and the Humanities in general.

Rudolph Masciantonio

DR. ELEANOR L. SANDSTROM
Director
Foreign Language Education

DR. RUDOLPH MASCIANTONIO
Assistant Director
Foreign Language Education

DR. BERNARD G. KELNER
Associate Superintendent
for Curriculum & Instruction

ACKNOWLEDGEMENTS

This guide was written by:

Dr. Rudolph Masciantonio, Assistant Director of Foreign Language Education, The School District of Philadelphia

Assisting and advising him in the development of this unit were the following members of the Latin and Greek Curriculum Committee of the School District:

Dr. Pietro D'Angelo, Itinerant Teacher of Latin, A. Wilson School, District I

Harry J. Farnon, Teacher of Latin, Central High School, District 6

William J. Farnon, Teacher of Latin, Fitler Academics Plus, District 6

Robert F. MacNeal, Foreign Language Department Head, Germantown High School, District 6

Grace McFarland, Itinerant Teacher of Latin, Lingelbach School, District 6

Richard Miller, Teacher of English, Bok Area Vocational Technical High School, District 2

Charles L. Myers, Itinerant Teacher of Latin, Howe School, District 7

Roland Nemeth, Teacher of Latin and Greek, Middle Years Alternative (MYA) For the Humanities, District I

William O. White, Itinerant Teacher of Latin, Bache School, District 2

Kathleen Kibble, Itinerant Teacher of Latin, Stearne School, Districts 7 & 5

Georgine Wickel, Teacher of Latin, The Philadelphia High School for Girls, District 6

Helen Lamont, Itinerant Teacher of Latin, Duckrey School, District 4

Dr. Eleanor L. Sandstrom, Director of Foreign Language Education, The School District of Philadelphia

Gratitude is also expressed to classes and teachers throughout the school district who assisted in field testing various drafts of these materials. and to Pierre St. Germain, Illustrator for the Division of Foreign Language Education, for the art work.

Our special thanks to Leonard Perloff, M.D., of the Department of Surgery of the University of Pennsylvania Hospital, who very kindly reviewed these materials and made valuable suggestions for improving them.

INTRODUCTION

I. GENERAL NOTES ON TEACHING LATIN IN THE PHILADELPHIA SCHOOL DISTRICT

The major goals for the teaching of Latin in The School District of Philadelphia have been stated as follows by the Latin and Greek Curriculum Committee and the K-12 Foreign Language Curriculum Committee:

1. To teach pupils to understand, speak, read, and write Latin within an appropriate cultural context.

2. To widen the cultural horizons of the pupils, especially through comparing the classical past with our own world and through showing the relationship between our world and that of the ancient people.

3. To extend the verbal functioning of the pupils in English, especially through vocabulary building based on Latin roots and affixes.

4. To foster interest in the study of classical and modern languages and the Humanities in general.

Other goals are:

1. To develop an appreciation of the relationship between Latin and other foreign languages, especially the Romance languages.

2. To improve the self-concept of pupils by giving them the opportunity to study a subject area with which they might not otherwise identify.

To aid in the accomplishment of these goals certain basic principles have been postulated regarding Latin instruction. These principles, together with the goals listed above, constitute School District policy on Latin instruction.

1. Latin programs must be geared to the needs of all children -- not just the academically talented or the college bound.

2. Latin teaching must be multisensory, lively, dramatic, enthusiastic, and creative. Pupils must be fully involved in the learning process.

3. Aural-oral work must be emphasized since this tends to heighten student interest and leads ultimately to a more natural and facile reading ability. Listening and speaking should always precede reading and writing.

4. Emphasis should be given to usage and to practice in the structure of the language as opposed to minute grammatical analysis.

5. Extending the English verbal functioning of pupils, especially by relating English words to their Latin roots and affixes, should form a major part of the Latin program. Attention should be given to contrastive study of the structures of Latin and English.

6. Comparing and contrasting classical culture with our own and tracing the influence of the past on the present should be emphasized.

II UTILIZATION OF THE GUIDE

A. Scheduling

This guide may form part of a minicourse or "course-within-a-course" on Word Power through Latin. The scheduling patterns that may be used for such a minicourse or "course-within-a-course" are very flexible; some workable possibilities include:

- one class period (circa 45 minutes) per week for an entire school year devoted to Word Power through Latin
- two class periods per week for a semester devoted to Word Power through Latin
- five class periods per week for one or two months devoted to Word Power through Latin
- a portion of almost every class period (e.g. 20 minutes) for an entire school year devoted to Word Power through Latin

The guide may also form part of the basis of a completely separate course (either a major or minor) called Word Power through Latin.

The guide may be used with pupils in grades 7-12 who have not necessarily studied any Latin previously. It may be used with pupils of all backgrounds and abilities.

B. Staffing

The guide may be used by a Latin teacher as part of a Latin course.

An English (or Reading or Language Arts) teacher with some background in Latin could also utilize the guide as part of the English course. Conceivably teachers in other fields may find the guide useful. Secondary school English teachers who are participants in the Language Arts through Latin project receive supportive help from the Division of Foreign Language Education. Secondary School English teachers who are not already participants in the Language Arts through Latin project and who wish to use this guide with their classes are urged to join the project. For details contact the Division of Foreign Language Education.

C. Articulation with Other Materials

This guide is part of a group of curriculum materials designed to build the English vocabulary and reading skills of secondary school pupils. The guide may be used before or after the other components of the group or completely independently of them. To date the following materials have appeared:

- Word Power through Latin: A Curriculum Resource
- The Numbers in Latin
- Star Trek with Latin
- Greco-Roman Sports and Games
- Latin the Language of Health Sciences

A guide on Legal Latin is also being planned. The teacher who uses this guide should also be aware of portions of the elementary school Latin curriculum materials which deal with English vocabulary development. These include:

- Look for the Latin Word: A Gamebook on English Derivatives and Cognates to Accompany How the Romans Lived and Spoke
- Latin the Key to English Vocabulary: A Gamebook on English Derivatives and Cognates to Accompany Voces de Olympo

With adaptations it is possible to use the above listed elementary school materials with secondary school pupils just as parts of the secondary school Word Power through Latin materials may be adopted to elementary school pupils.

D. Organization of Each Lesson

Each lesson is conceived of as approximately 45 minutes of instruction for an average secondary school class. Naturally some classes will require more time and some less. In general thorough mastery of what is covered is preferable to simply "covering" material without mastery.

Each lesson specifies what can be taught (objectives) and how to teach it (activities). In a way the teacher is provided with a step-by-step recipe for accomplishing the objectives of each lesson. The teacher at first may wish to follow the "recipe" very closely. Later, of course, adaptations in the activities (and in the objectives of the lessons) may be made. All adaptations, however, should be made within the framework of the general notes on teaching Latin in the Philadelphia School District given

at the beginning of this introduction.

Latin utterances (quotations, dialogues, phrases) appearing in the guide are to be introduced orally. Teachers should let the pupils hear these utterances and then have them repeat them chorally and individually. Reading and writing these utterances should come only as a third and fourth step after understanding and speaking. In other words a strict four skills or audio-lingual or aural-oral-lecto-graphical approach is envisioned.

The same audio-lingual approach is to be used for the teaching of English derivatives and cognates. Hearing and speaking should always precede reading and writing.

Wordgames which are included in the guide in general should be reproduced so that each pupil receives a copy. Due to shortages in paper and breakdowns in duplicating machines in the schools, teachers may prefer to treat the copies of the wordgames as non-consumable items.

The guide ends with a unit review which enables the teacher to gauge how well pupils have mastered the content.

E. General Hints to the Teacher

The following list of helpful hints for using this guide was drawn up as a result of field testing:

1. Be sure to adhere to the audio-lingual approach. Presenting the four language skills (listening comprehension, speaking, reading, and writing) distinctly and in proper order will provide required re-entry for pupils. It is also a more natural way to acquire knowledge of a first or second language.

2. Be sure to appeal to as many of the senses of pupils as possible. A talking teacher is not enough --- no matter how engaging or interesting. Use visual cues (where appropriate), charts, the chalkboard, and other realia. Get the pupils physically involved in the learning process as much as possible.

3. Be enthusiastic about your subject! Your enthusiasm will be contagious!

4. Get the pupils involved in enrichment projects of various kinds. Pupils can be asked to make posters illustrating etymological relationships or illustrating quotations and proverbs introduced in the course of the unit or illustrating cultural concepts.

5. Give emphasis to the usage of new English derivatives and cognates. Get the pupils using the derivatives and cognates in sentences.

6. Relate what is taught in the Word Power through Latin unit to the rest of the curriculum whenever appropriate. Invite pupils to use etymological principles, for example, in learning new vocabulary in any subject. Encourage them to become aware of the impact of the classical heritage in such areas as art, literature, music, history, and science.

7. Be sure to intersperse choral and individual response in your teaching. Pupils need the practice and security that choral response and repetition provide. They also need to be heard individually so that the teacher can assess their efforts and provide individualized help.

8. Be sure that material placed on and copied from the chalkboard is accurate. Teachers should supervise carefully the transcription of material by pupils.

F. An Overview of the Material To Be Taught in This Unit

1. Latin utterances used in anatomy, pharmacology, and medicine
2. English derivatives and cognates connected with the Latin utterances
3. Information on the Greco-Roman heritage in the area of health sciences
4. The genitive case - some forms and uses in medical terminology

LESSON PROFILES FOR

LATIN, THE LANGUAGE OF HEALTH SCIENCES

LESSON I

Objectives

1. To make pupils aware of the influence of Latin in medical and other scientific terminology
2. To teach the following Latin utterances related to the parts of the body:

Ecce caput!	Look! The head!
Ecce facies!	Look! The face!
Ecce collum!	Look! The neck!
Ecce humerus!	Look! The shoulder!
Ecce pectus!	Look! The chest!
Ecce cor!	Look! The heart!
Ecce abdomen!	Look! The abdomen!
Ecce bracchium!	Look! The arm!
Ecce manus!	Look! The hand!
Ecce digitus!	Look! The finger!
Ecce femur!	Look! The thigh!
Ecce crus!	Look! The leg!
Ecce genu!	Look! The knee!
Ecce pes!	Look! The foot!

Suqested activities

1. Ask the pupils if they have ever heard of Hippocrates and the Hippocratic Oath. Explain if necessary that Hippocrates was a famous Greek physician of antiquity (5th c.B.C.) who is called the Father of Medicine. The Hippocratic oath is a pledge of ethical professional behavior taken by new physicians. Much medical terminology goes back to the ancient Greeks and Romans. You may mention the Greek philosopher Aristotle and Galen, the physician of the Roman Emperor Marcus Aurelius, as being responsible for the development of medical terminology. Point out that physicians in the Middle Ages and Renaissance continued to use Latin in their technical writing and that as modern science developed, Latin or Latinized terminology was used universally in medicine and other scientific fields. Have pupils echo chorally such key terms as Hippocrates, Hippocratic Oath, Aristotle, Galen, Marcus Aurelius.

2. Draw a picture of the human body on the chalkboard or borrow a model from the biology lab or use a student or yourself as a "live" model. Point to the various parts of the body and say the appropriate Latin utterance as listed in the Objectives of this lesson. Have the pupils listen to each utterance several times. Then ask the pupils to repeat each utterance corally and then individually. Have the pupils touch or point to each appropriate part of the body as they repeat. Use the word ECCE as you point.

As the pupils become familiar with the terms increase the pace to rapid fire.

You may want to divide the class into teams and then to give each team a point for each correct answer.

Be sure to intersperse individual response with choral response. Listen carefully to the choral response to be sure that pupils are saying the utterances correctly.

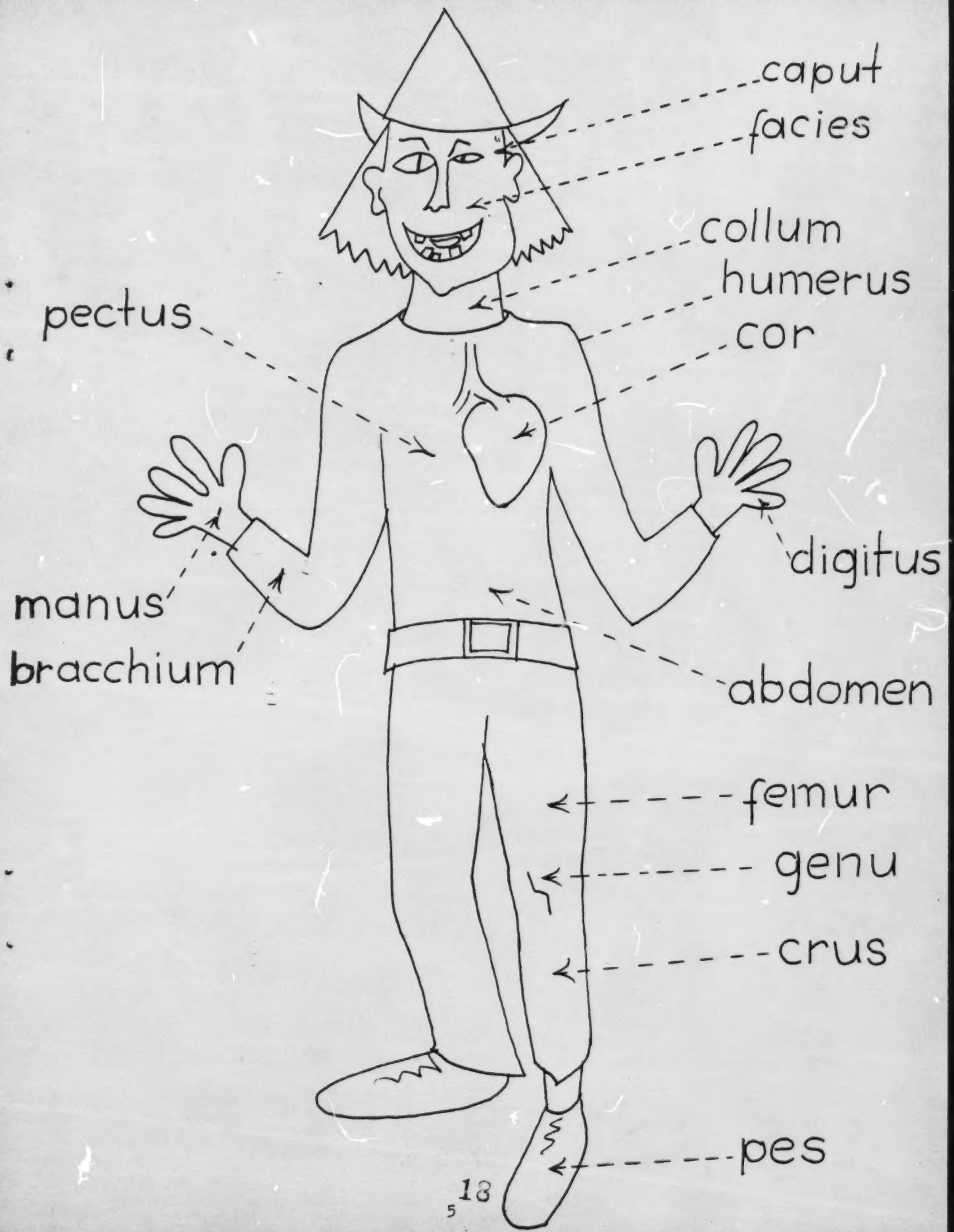
You may wish to have the pupils sing the following roughly to the tune of " O My Darling Clementine ".

Ecce caput! Ecce facies! Ecce collum!
Ecce humerus! Ecce pectus! Ecce cor!
Ecce abdomen! Ecce bracchium! Ecce manus!
Ecce digitus! Ecce femur! Ecce crus!
Ecce genu! Ecce pes! etc.

3. The next step is to have the pupils read the Latin anatomical terms. To do this you may want to thermofax, duplicate, and distribute the anatomical chart on the next page . Have the pupils read each term out loud after you. If you are not able to thermofax and duplicate the chart put it on the chalkboard. Be sure to spell the terms correctly.

---

* You may want to point out that the interjection Ecce! means "Look!" or "Behold!" or "See here!" and that it appears in the titles of several famous paintings of Christ called Ecce homo! ("Behold the man!") Ecce homo! are words of the Roman governor Pontius Pilate in the traditional account of Christ's Passion.


caput
facies
collum
humerus
pectus
cor
digitus
manus
bracchium
abdomen
femur
genu
crus
pes

4. The final step is to have the pupils write the Latin anatomical terms. Another version of the chart without the names printed in could be distributed and the pupils asked to fill in the names. Or the pupils could be asked to copy the chart into their notebooks.

Whenever pupils copy material from the board or elsewhere, the teacher must supervise the copying carefully to be sure that it is done accurately.

LESSON 2

Objectives

1. To review the Latin names of the parts of the body presented in the previous lesson.
2. To introduce the following English derivatives and cognates from the Latin names: per capita, decapitate, superficial, facial, collar, collet, humeral, pectoral, expectorate, coronary, cordial, abdominal, brace, bracelet, manipulate, manufacture, digital, femural, genuflect, crural, pedestrian, pedal

Suggested Activities

1. Using a chalk board illustration or a model review the parts of the body orally. Use the interjection Ecce as you point to the various parts of the body.
2. Tell the pupils that the Latin names for the parts of the body are often used in English and given an anglicized pronunciation. For example, the word for thigh (femur) is often pronounced "fée mur". Approach the following chart orally in the usual fashion. Be sure that pupils echo the English words chorally and individually. When discussing the Latin roots and the meanings of the English words elicit as much information as possible from the pupils.

English Words	Latin Root	Meaning of English Word
per capita	caput "head"	per head, by head
decapitate	caput "head"	to cut off a head
superficial	facies "face"	on the surface
facial	facies "face"	pertaining to the face
collar	collum "neck"	part of a garment encircling the neck

collet	collum "neck"	a metal collar used in watchmaking
humeral	humerous "shoulder"	relating to the shoulder
pectoral	pectus "chest	relating to the chest
expectorate	pectus "chest"	to spit
coronary	cor "heart"	relating to the heart
cordial	cor "heart"	friendly
abdominal	abdomen "abdomen"	relating to the abdomen
brace	bracchium "arm"	support
bracelet	bracchium "arm"	decorative item worn around the wrist
manipulate	manus "hand"	to operate or control by skilled use of the hands
manufacture	manus "hand"	to make
digital	digitus "finger"	relating to the finger or to an Arabic numeral
femural	femur "thigh"	relating to the thigh
genuflect	genu "knee"	to bend the knee
crural	crus "leg"	pertaining to the leg
pedestrian	pes "foot"	a person traveling on foot
pedal	pes "foot"	a lever operated by foot

3. Ask the following questions in rapid fire fashion:

   a. Have you ever been decapitated?

   b. What is the per capita per pupil cost in this school?

   c. Do superficial remarks address the heart of a subject?

   d. Does a tee shirt have a collar?

   e. Is a metal collar used in watchmaking called a collet?

   f. How would you distinguish between a humeral and a pectoral pain?

   g. Is expectorating in the subway permitted by law?

   h. What is the difference between coronary and abdominal pain?

i. Do you have a coridal relationship with your teacher?

j. Does a person with a broken arm wear a brace or a bracelet?

k. Are you able to manipulate a car engine?

l. Does Philadelphia do much manufacturing?

m. What is a digital clock?

n. Do athletes normally have femoral strength?

o. Do people genuflect sometimes in church?

p. What is a crural support?

q. Are there usually many pedestrians on Chestnut Street?

r. Do pianos have pedals?

4. Have the pupils copy the derivative chart into their notebooks. For some classes you may want to assign pupils the task of locating additional derivatives and cognates from such roots as caput, manus, pes, and facies. When pupils copy the material check to see that they do it carefully and correctly. If the duplicating budget in your school permits you may want to thermofax the derivative chart and simply distribute it to the pupils.

LESSON 3

Objectives

1. To review the reading and writing of the English derivatives and cognates presented in the previous lesson.
2. To teach the following Latin utterances:

Ecce capillus!	Look! a hair!
Ecce frons!	Look! a brow!
Ecce oculus!	Look! an eye!
Ecce auris!	Look! an ear!
Ecce nasus!	Look! a nose!
Ecce gena!	Look! a cheek!
Ecce dens!	Look! a tooth!
Ecce labium!	Look! a lip!
Ecce os!	Look! a mouth!
Ecce guttur!	Look! a throat!

3. To teach the following Latin proverb from Publilius Syrus:

Etiam capillus unus habet umbram suam	Even a single hair casts its own shadow.

Suggested Activities

1. Have the pupils echo choraly the derivatives and cognates listed in the previous lesson quickly. Then distribute Wordgame A and have the pupils work on it quietly. The teacher should help the students individually as necessary.

Wordgame A

PLASTIC MAN

Plastic Man has grabbed a bunch of derivatives and cognates with his elongated arms. Help him get rid of the derivatives and cognates by placing them in the proper sentences. Appropriate Latin roots are given after each sentence to help you.

1. The _____ income in many countries of Asia is low. (CAPUT)
2. Because Plastic Man's neck stretches it would be difficult to _____ him. (CAPUT)
3. The accelerator of an automobile is also called the gas _____. (PES)
4. Drivers sometimes ignore the rights of the _____ . (PES)
5. A minor problem or difficulty may be called _____ . (FACIES)
6. A moustache is an example of _____ hair. (FACIES)
7. A _____ wound is one on the leg. (CRUS)
8. At Mass a priest will sometimes _____. (GENU)
9. The _____ muscle of your leg is located above the knee. (FEMUR)
10. _____ manipulation is manipulation of the fingers. (DIGITUS)
11. Volkswagen factories _____ automobiles. (MANUS)
12. Chiropractors _____ the spine. (MANUS)
13. A person with a weak leg muscle might wear a _____ for support. (BRACCHIUM)
14. Pain from appendicitis may be called _____ pain. (ABDOMEN)
15. A heart patient has _____ problems. (COR)
16. A _____ greeting is a warm and friendly one. (COR)
17. When a person has a heart attack he or she has _____ pain. (PECTUS)
18. The sign on the subway platform urging people not to spit said "Please Do Not _____. (PECTUS)
19. A veil worn over the shoulders is a _____veil. (HUMUS)
20. Watchmakers use a piece of metal called a _____. (COLLUM)
21. "Ring around the _____" is a common laundry problem. (COLLUM)
22. A piece of jewelry or ornament worn around the wrist is called a _____. (BRACCHIUM)

4. Draw the following face (or something similar) on the chalkboard. Use it to teach orally the Latin utterances given in the objectives of this lesson.

Use the word ECCE! to elicit the proper part of the face as you point to it. Be sure to intersperse choral and individual response. Do not write the words on the board at this point.

5. Tell the pupils that they are going to learn a proverb that involves the Latin word for hair and which means in English "Even a single hair casts its own shadow". The proverb is taken from the writings of Publilius Syrus who came to Rome as a slave in the first century B.C. After being set free he wrote plays called mimes. Proverbs that occurred in these mimes were collected for schoolboys to learn. These proverbs have become very popular and have been quoted often over the centuries (you may want to note that mimes are comic dramas that involve mimickry.) Have the pupils say the name Publilius Syrus several times. Then write the name on the board. Ask the pupils to echo the proverb. Say the proverb Etiam capillus unus habet umbram suam several times. Have the pupils echo chorally (word by word if necessary) and then individually. After pupils have mastered the proverb orally you may put the proverb on the board and have the pupils copy it.

LESSON 4

Objectives

1. To introduce the following English derivatives and cognates from Latin utterances given in the preceding lesson: capillary, depilatory, affront, frontal, oculist, ocular, aural, auricular, nasal, post-nasal, genal, dentoid, dentition, dentine, labial, labiate, oral, aural-oral, guttural, gutturalize, umbrage, umbrageous
2. To review the Latin utterances presented in the privious lesson.

Activities

1. Draw a face on the chalkboard and review the Latin utterances from the previous lesson Use the question Quid est? and elicit the appropriate answer by pointing to various parts of the face.
2. Approach the following derivative chart in the usual fashion.

English word	Latin root	Meaning of English word
capillary	capillus "hair"	hair-like blood vessel
depilatory	capillus "hair"	hair remover
affront	frons "brows"	to treat insolently or insultingly; insolent treatment
frontal	frons "brow"	pertaining to the forehead or front
oculist	oculus "eye"	an ophthalmologist or optometrist
ocular	oculus "eye"	pertaining to the eye
aural	auris "ear"	through the ear or pertaining to the ear
auricular	auris "ear"	perceived through the ear or pertaining to the ear
nasal	nasus "nose"	pertaining to the nose
post nasal	nasus "nose"	behin the nose
genal	gena "cheek"	pertaining to the cheek
subgenal	gena "cheek"	under the cheek

dentoid	dens "tooth"	tooth-like
dentition	dens "tooth"	the arrangement of the teeth
dentine	dens "tooth"	part of the tooth beneath the enamel
labial	labium "lip"	pertaining to lips, formed by the lips
labiate	labium "lip"	having lip-like parts
oral	os (genitive case **is oris**) **"mouth"**	pertaining to the mouth
aural-oral	os "mouth" auris "ear"	through the mouth and ears
guttural	guttur "throat"	pertaining to the throat
gutturalize	guttur "throat"	to make a sound by moving the tongue toward the throat
umbrage	umbra "shadow"	offense, resentment
umbrageous	umbra "shadow"	affording shade

3. Ask the following questions in rapid-fire fashion:

   a. Have you ever affronted anyone?

   b. Do you know anyone who has had a frontal lobotomy?

   c. May a razor serve as a depilatory?

   d. Is it true that most capillaries are so small you can hardly see them?

   e. Have you visited an oculist lately?

   f. What is an ocular correction?

   g. What is an auricular confession?

   h. What is aural comprehension?

   i. What is a post-nasal drip?

   j. Do you have clogged nasal passages?

   k. If the doctor said you have a genal and subgenal infection what would your problem be?

l. Is the dentition of a cat different from that of a human being?

m. Can a post or fence have a dentoid shape?

n. True or false: Dentine is the material beneath the enamel of your teeth.

o. Are the letters b and p labials?

p. Do some plants have labiate leaves?

q. What is oral hygiene?

r. Does your teacher use an aural-oral approach in teaching Latin?

s. Does German have many guttural sounds?

t. Are animals able to gutturalize?

u. Do people take umbrage at you?

v. Is a tree normally umbrageous in summer?

LESSON 5

Objectives

1. To review the reading and writing of English derivatives and congnates presented in the previous lesson.

2. To teach the following Latin utterances:

Quid est? Lingua est. Barba est. Cerebrum est.	What is this? This is a tongue. This is a beard. This is a brain.
Philosophum non facit barba	A beard does not make a philosopher (Plutarch)
Non quaerit aeger medicum eloquentem.	A sick person does not seek a talkative doctor (Seneca)
Ars longa vita brevis	Art is long but life is short. (Hippocrates)

Suggested Activities

1. Use a drawing such as the following to introduce Lingua est, Barba est, and Cerebrum est, orally.

2. Tell the pupils that they are going to learn some proverbs. One is from the writings of a man named Plutarch who wrote a famous series of biographies called Parallel Lives of Greeks and Romans. Shakespeare and others used Plutarch as a source. Tell the pupils what the quotation means in English "A beard does not make a philosopher", i.e., outward appearances don't necessarily indicate the real substance of a person or thing). Have the pupils repeat the Latin several times chorally and individually. Ask the pupils to give examples of the proverb and to comment on whether they think it is valid or not.

In introducing the proverb from Seneca tell the pupils that Seneca was the teacher of the Emperor Nero and a famous philosopher. He also wrote tragedies. Tell the pupils what the quotation means in English ("A sick person does not seek a talkative doctor", i.e., people who need assistance don't want words; they want deeds). Have the pupils repeat the Latin several times chorally and individually. Ask the pupils to give examples of the proverb and to discuss its validity.

Ask the pupils if they remember who Hippocrates was. Review through questions the information on him given s.v. Suggested Activities of Lesson I of this unit. Then explain that the quotation Ars longa vita brevis originally meant that the art (or science) of medicine will live on even though the lives of patients and physicians are short. Many times the proverb is now interpreted to mean that although the artist himself will soon die his work will continue to live. Another interpretation is that learning and professional training take too long a time when compared with the shortness of human life. Ask the pupils to give their opinions on the validity of proverb. Have the pupils repeat the proverb in Latin several times chorally and individually.

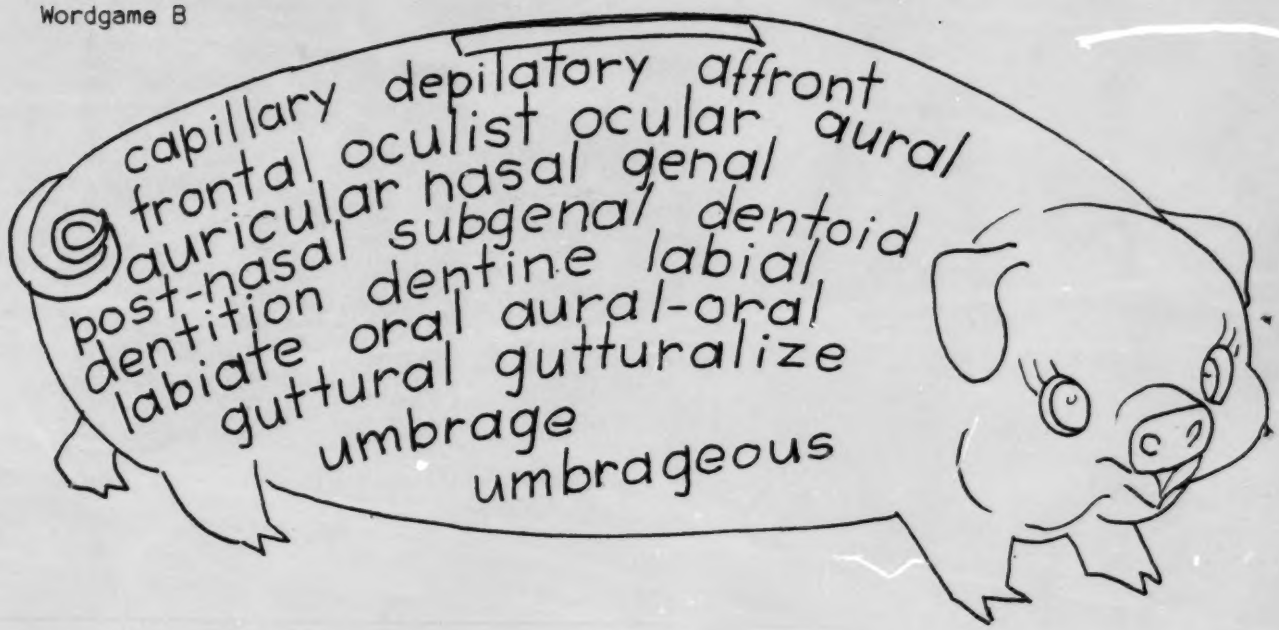
3. You may ask the pupils to sing the proverbs to the tune of "All Beautiful for Spacious Skies" **("America") with the words arranged thus:**

Ars longa vita brevis.
Non quaerit aeger
Medicum eloquentem.
Ars longa vita brevis.
Philosophum non facit
Barba, non facit barba.
Ars longa vita brevis
Ars longa vita brevis.

Slight adaptations of the melody will be necessary.

4. Duplicate and distribute the following word game after having the pupils echo chorally the derivatives and cognates given in the preceeding lesson. The Wordgame may be assigned as homework.

Wordgame B



This cute little piggy bank is filled with derivatives and cognates. See if you can empty the bank by placing the derivatives and cognates in the appropriate sentences. Cross out each word in the piggy bank as you use it. Latin roots are given with each sentence to help you.

1. An _____ tree provides shade. (UMBRA)
2. German contains many _____ sounds. (GUTTUR)
3. Calling someone a "dumb bunny" might cause the person to take _____. (UMBRA)
4. When you move the tongue back toward the throat when pronouncing a word you are said to _____. (GUTTUR)
5. Though some blood vessels are readily visible in your body it is difficult to see a _____. (CAPILLUS)
6. The hair remover NAIR is also called a _____. (CAPILLUS)
7. Calling someone a "dumb bunny" would be an _____ that might cause someone to take umbrage. (FRONS)
8. _____ nudity usually causes a film to get an X rating. (FRONS)
9. When a language is studied through listening and speaking practice, an _____ approach is being used. (OS, AURIS)

10. Good _____ hygiene requires regualr brushing of the teeth and regular visits to the dentist. (OS)

11. Some plants have lip-like or _____ parts. (LABIUM)

12. The letters B and P are called _____ in linguistics. (LABIUM)

13. The _____ of the tooth is located under the enamel. (DENS)

14. The _____ of older people is generally different from that of teen-agers. (DENS)

15. A leat that looks like a tooth might be described by a botanist as _____. (DENS)

16. A physician might call an infection under the cheek _____. (GENA)

17. An infection on the cheek itself would be _____. (GENA)

18. There are various products on the market to relieve _____ congestion and _____ drip. (NASUS)

19. An _____ confession would be one simply spoken rather than written. (AURIS)

20. An _____ problem would be one having to do with hearing or the ears. (AURIS)

21. An opthalmologist or an optometrist may be called an _____. (OCULUS)

22. An _____ instrument may be used by a doctor to examine the eyes. (OCULUS)

LESSON 6

Objectives

1. To review the Latin utterances presented in the previous lesson.
2. To introduce the following English derivatives and cognates from the Latin utterances:

   linguistics, multilingual, barbarian, barbate, cerebral, cerebation, eloquence, elocution, brevity, breve

Suggested Activites

1. Use a drawing such as the following to review Lingua est, Barba est and Cerebrum est. Use the question Quid est? to elicit these utterances. Write the utterances on the board.

2. Review the quotations from the previous lesson orally. Then write the quotations in Latin on the board and have the pupils copy them.
3. Approach the following derivative and cognate chart in the usual fashion:

English Word	Latin Root	Meaning of English Word
linguistics	lingua "tongue"	the science of the nature and structure of human speech
multilingual	lingua "tongue"	speaking many languages
barbarian	barba "beard"	wild, uncivilized
barbate	barba "beard"	having a beard
cerebral	cerebrum "brain"	relating to the brain

LESSON 7

Objectives

1. To familiarize pupils with the use of Latin abbreviations in the writing of pharmaceutical prescriptions.
2. To introduce the following Latin expressions use in prescriptions.

Latin expression	Abbreviation	Meaning in English
recipe	℞	take
ante cibos	a.c.	before meals
post cibos	p.c.	after meals
cum	c̄	with
sine	s	without
[illegible]ies	d	day
nocte	noct.	at night
pro re nata	p.r.n.	as needed
omni secunda hora	omn. 2 hr.	every second hour
omni tertia hora	omn. 3 hr.	every third hour
adde	add.	add
absente febre	abs. feb.	fever being absent
guttae	gtt.	drops
bis in die	b.i.d.	twice a day
ter in die	t.i.d.	three a day

quater in die	q.i.d.	four times a day
per os	p.o.	by the mouth
statim	stat.	immediately
ad libitum	ad. lib.	at pleasure
aqua	aq.	water
quantum sufficiat	q.s.	as much as needed
signa	sig.	write
misce	M.	mix
non repetatur	non rep.	do not repeat
omni nocte	o.n.	every night
omni mane	o.m.	every morning
hora somni	h.s.	at bedtime
si opus sit	s.o.s.	if necessary
dispensa	disp.	dispense

Activities

1. Explain that Latin is frequently used in the writing of pharmaceutical prescriptions. Most of the terms are abbreviated. The use of Latin allows easy communication between physicians and pharmacists of different linguistic background.

2. Say each Latin expression listed in the objectives. Have the pupils repeat. Explain the meaning of each expression in English. Put the appropriate abbreviations on the chalkboard. After the pupils have acquired oral familiarity with the Latin expressions put the expressions on the board along with the English meanings. Have the pupils copy the entire chart which should be titled "Table of Common Pharmaceutical Latin".
3. Put the following prescriptions on the board or duplicate them. Have the pupils interpret them either in writing or orally.

Ronald Romanus M.D.
Hospital of the University of Hardknocks
Philadelphia, PA 19104

C. S. MARQUIS
name
5835 McMahon St.
address

℞ Phenergan c̄ codeine
Disp. 6 oz.
Sig. 5 mg. t.i.d a c.

M.D. Ronald Romanus M.D.
Do not substitute
substitution permissible
AF6974500

Rita Romana M.D.
Hospital of the University of Hardknocks
Philadelphia, PA 19104

T. CLAUDIUS

name

429 S. 20TH ST.

address

Xylocaine viscous M c̄ 29. 9. 5.

℞ Disp. 6 oz. Non rep.
Sig. 2 qh P.O. ad lib. p.r.n. abs. Feb.

M.D. Rita Romana M.D.

Do not substitute Substitution Permissible

Ronald Romanus M.D.
Hospital of the University of Hardknocks
Philadelphia, PA 19104

D. Foxy

name

7412 Tookeny Creek Parkway

address

℞ Colistin
Disp. 5 oz. non rep.
Sig. 10 mg. c̄ aq. q.i.d a.c. et h.s.

M.D. Ronald Romanus M.D.

Do Not Substitute Substitution Permissible

AP 6274500

cerebation	cerebrum "brain"	thinking
eloquence	eloquentem "talkative"	persuasive and fluent in discurse
elocution	eloquentem "talkative"	style or manner public speaking
brevity	brevis "short"	shortness
breve	brevis "short"	a symbol (˘) placed over a vowel to show that it has a short sound

4. Ask the following true or false questions:

   a. Africa is a multilingual continent.

   b. An old man with a long beard might be described as barbate.

   c. The dictionary uses a breve to indicate a short vowel sound.

   d. The science of human speech is called linguistics.

   e. The Goths and the Visogoths who invaded the Roman Empire were considered barbarians.

   f. Cerebation is important in planning.

   g. A cerebral hemmorrhage is very serious.

   h. Political leaders need eloquence.

   i. Elocution is also important to political leaders.

   j. Brevity is also important to political leaders.

5. Now that pupils are accustomed to the idea of analysing unfamiliar words in terms of their etymologies, you might assign the following names of diseases for research projects: coronary occlusion; cerebral occlusion; ossification; subcutaneous infection; cardiac arrest; myocardial infarction; hydroencephalitis; somnambulism; lupus erythematosus; retinitis pigmentosa. A dictionary that provides etymologies should be consulted.

LESSON 8

Objectives

1. To introduce some of the forms and uses of the genitive case.
2. To introduce the following medical Latin expressions which use the genitive case.

angina pectoris	painful spasm of the chest
angina abdominis	painful spasm of the abdomen
rigor mortis	the stiffness of death
latissimus dorsi	the widest muscle of the back
pars duodeni	the part of the duodenum
corpus uteri	the body of the womb
corpus ventriculi	the body of the stomach
corpus costae	the body of the rib
pars retinae caeca	the part of the retina that does not see

Activities

1. Ask the pupils if they have ever heard of the possessive case in English. Invite the pupils to give some examples or provide some examples such as the following:

   the cat's whiskers

   the boy's hair

   the teacher's moustache

   Point out that the possessive case form ends in apostrophe S. Sometimes a phrase involving the word "of" is used instead of or as the equivalent of the possessive case. Indicate some examples such as the following:

   the whiskers of the cat
   the hair of the boy
   the moustache of the teacher

2. Mention that in Latin several ending appear on words to indicate possession. These endings include:

- ae
- i
- is

Have the pupils echo the endings several times. Then write the endings on the board. Mention that the case which in Latin is roughly the equivalent of the English possessive case is called the genitive case or casus genitivus. Have these terms echoed several times.

3. Point out that in medical terminology the Latin genitive case sometimes occurs. The well known name of a heart problem angina pectoris means "a spasm of the chest" or "the chest's spasm". Pectoris is a word in the genitive case. Have the pupils repeat the phrase angina pectoris several times. You may want to mention that this phrase (like other Latin terms occuring in English) is sometimes anglicized in pronunciation. Thus the disease is sometimes called ann-juy-nah pec-te-ris.

4. Have the pupils repeat each phrase given in the objectives of this lesson. Explain each phrase. Eventually have the pupils copy each phrase and its meaning.

5. Ask the following fill-in questions:

   a. Lifting weights will improve the size and condition of your _____ _____ muscle.

   b. The blind spot in the retina of the human eye is called the ___ ___ ___.

   c. When the arms and legs of a corpse stiffen the corpse is experiencing _____ _____.

   d. A painful spasm in the abdomen is called _____ _____.

   e. A heart condition might be accompanied by _____ _____.

   f. Cancer might be a reason for surgical removal of a woman's _____ ____.

g. A serious fall could cause fracture of the _____ _____.

h. An ulcer in the _____ _____ could be quite painful.

i. A blockage of the _____ _____ would be a serious intestinal problem.

LESSON 9

Objectives

1. To review the forms and uses of the genitive case.
2. To review the medical Latin expressions which use the genitive case.

Activities

Duplicate the following programmed learning materials for the class. Explain that the idea of programmed learning is to work at one's own rate of speed. Each frame in the programmed material is a small task for the student to perform or a question to answer. Correct answers are given in the right hand column. The student should cover the answer column with an index card or piece of paper and unmask each answer as needed to check her or his work.

While pupils are working on the programmed learning materials, the role of the teacher is tutorial, i.e., helping individual pupils, expanding on the work in the frames.

Frame 1

Hello! My name is Bad News Jimmi. I'm a fairly intellectual feline, and I'm going to ask you some questions or ask you to perform some tasks to help you to learn. Your task for this frame is to cover the right hand column with a small piece of paper or index card.

Frame 2

In the following sentence pick out the word that is in the possessive case:
The cat's whiskers are long.

cat's

Frame 3

The sign of the possessive case in English is _____.

apostrophe s

('s)

Frame 4

The idea of the possessive case may also be expressed by the word _____.

of
For example one could say: "The whiskers of the cat are long".

Frame 5

In Latin the rough equivalent of the English possessive case is called the casus genitivus or g _____case.

genitive

Frame 6

In Latin several endings are used to indicate the genitive case. These endings include:

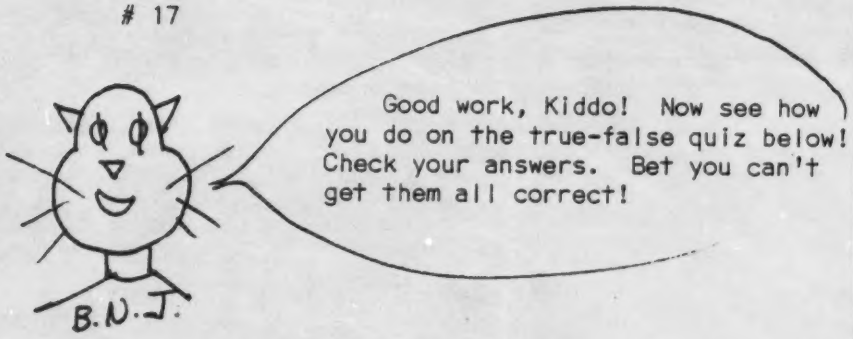
-ae,-i, and -is.

Copy these endings on scrap paper for practice.

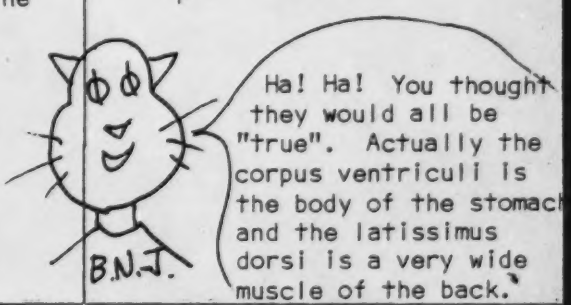
Frame 7

In the Latin phrases that follow find the word that is in the genitive case. Check your answer.

# 8	angina pectoris	pectoris
# 9	angina abdominis	abdominis
#10	rigor mortis	mortis
#11	corpus costae	costae
#12	latissimus dorsi	dorsi
#13	pars duodeni	duodeni
#14	corpus uteri	uteri
#15	corpus ventriculi	ventriculi
#16	pars retinae caeca	retinae

# 17  Angina pectoris is a squeezing pain or spasm in the chest.	T
# 18 When a dead frog's legs stiffen the frog is experiencing rigor mortis.	T
# 19 The retina of the eye is very sensitive and enable us to see. One spot on the retina that does not see is called the pars retinae caeca.	T
# 20 A broken corpus costae can be very painful.	T
# 21 A painful spasm of the abdomen is called angina abdominis.	T

# 22 Tarzan has a well developed latissimus dorsi.	T
# 23 The pars duodeni is a part of the small intestine.	T
# 24 The corpus uteri is the body of the womb and as such part of the reproductive system.	T
# 25 The corpus ventriculi is the same as the latissimus dorsi.	F


Ha! Ha! You thought they would all be "true". Actually the corpus ventriculi is the body of the stomach and the latissimus dorsi is a very wide muscle of the back.
B.N.J.

47

LESSON 10

Objectives

1. To make pupils aware of the influence of mythology on medical terminology.
2. To explain the mythological background of the following terms:

   arachnoid membrane
   iris
   aphrodisiac
   Achilles' tendon

Activities

1. Explain to the pupils that sometimes medical terminology is taken from the Greek and Roman myths or stories about gods and heroes. Today they will see some examples.
2. One example is the arachnoid membrane or arachnoidea. Have the pupils echo these terms. Explain that the arachnoid membrane (also called the arachnoidea) ia a thin, delicate membrane, one of the three that enclose the brain and spinal cord. The arachnoidea is named for Arachne, a young girl who in Greek mythology challenged the goddess Athena to a contest. Explain the story of Arachne as dramatically as possible in the following terms. Have pupils echo proper names. Put key words on the chalkboard as you explain.

   Arachne was a teenage girl who was skilled in the art of weaving and lived in Asia Minor. She challenged Athena the goddess of wisdom to a contest at the loom. Athena was also noted for her weaving.

   Athena and Arachne began to weave tapestries. Athena depicted the Acropolis in Athens and the 12 Olympian gods seated on lofty thrones. In order that Arachne might know what reward she could expect for her presumption, Athena wove corner scenes showing the punishments given to mortals who dared to challenge the gods.

Arachne, in her tapestry, wove pictures of the gods in various disguises seducing mortal women. Athena became angry and tore the tapestry showing the crimes of the gods. With her shuttle she struck Arachne again and again. Arachne could bear the punishment no longer and hanged herself. The Roman poet Ovid tells us that as Arachne hung there, Athena felt pity and lifted her saying:

> Vive quidem, pende tamen, improba ...
> lexque eadem poenae, ne sis secura futuri,
> dicta tuo generi serisque nepotibus esto.
>
> "Live wicked girl but hang forever; and so that you may never feel secure in time to come, let this same punishment fall upon all your generations, even to remote posterity".

Athena then sprinkled Arachne with the juices of an herb, and the girls body was changed into that of a spider. Arachne's name is commemorated in the name of the arachnoid membrane as well as in the name scientific name for spiders, viz. arachnids.

3. Put the following drawing of an eye on the board:

Point out that part of the eye is called the iris. This name commemorates Iris, the many hued goddess of the rainbow, who acted as a special messenger for both the king and queen of the gods. We meet Iris in the Roman poet Vergil's account of the death of the African queen Dido. Dido was queen of

Carthage. Locate Carthage on a map (near Tunis in modern Tunisia). Her lover Aeneas had deserted her. She, in despair, attempted to take her own life by falling on a sword. But her spirit would not leave her since suicides were not permitted to enter the realms of the dead unless a lock of hair were taken from their heads. Juno, the queen of the gods, took pity on her and sent Iris down to release her struggling soul from her body. Vergil espresses the scene in beautiful poetry thus:

> Ergo Iris croceis per caelum roscida pinnis,
> mille trahens varios adverso sole colores,
> devolat, et supra caput astitit: "Hunc ego Diti
> sacrum jussa fero, teque isto corpore solvo".
> Sic ait et dextra crinem secat: omnis et una
> dilapsus calor, atque in ventos vita recessit.
>
> And Iris all covered with dew flew down
> from heaven on golden wings, trailing
> a thousand colors reflected in the rays
> of the sun and stood above her head.
> "As I have been ordered, I take this
> offering sacred to the death king and free you
> from your body". So Iris spoke, and
> with her hand cut the lock of hair.
> All of a sudden the warmth left her,
> and life faded into winds.
>
> (Vergil, Aeneid 4.700-705)

4. Tell the pupils that the name of Iris also gives us other scientific terms. Approach the following chart in the usual way.

English word	Latin root	Meaning of the English word
iris	Iris - goddess of the rainbow	a plant with various colored flowers
iridescent	"	producing lustrous, rainbowlike colors
iridescence	"	glowing quality
iridic	"	relating to the iris of the eye
iritis	"	an inflamation of the eye
iridectomy	"	surgical removal of part of the iris of the eye
iridium	"	a yellowish - white metal

5. Ask the following questions in rapid-fire fashion:

   a. Are neon signs iridescent?

   b. Is iritis something that requires a physician's attention?

   c. What is an iridic examination?

   d. Who performs an iridectomy?

   e. Does an iris have colored flowers?

   f. Do fire flies show iridescence?

   g. What is iridium?

6. As a homework assignment have the pupils look up the derivation of aphrodisiac and Achilles' tendon. An aphrodisiac is a love stimulant and it takes its name from Aphrodite, the goddess of love. The Achilles tendon in the heel is named for the Greek hero Achilles who had been dipped in the River Styx as a baby and thus made invulnerable except on his heel where his mother held him.

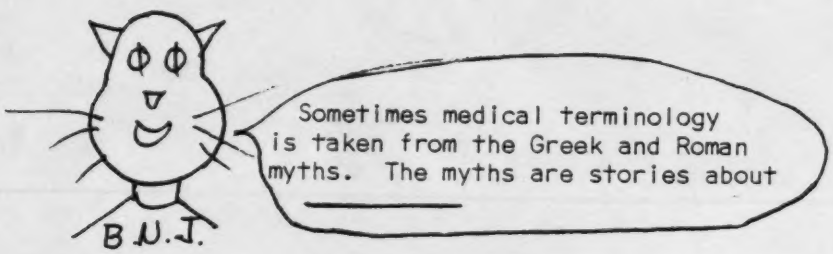
LESSON II

Objectives

1. To review the influence of mythology on medical terminology.
2. To review the mythological background of these terms: arachnoid membrane, iris, aphrodisiac, Archilles tendon.

Activities

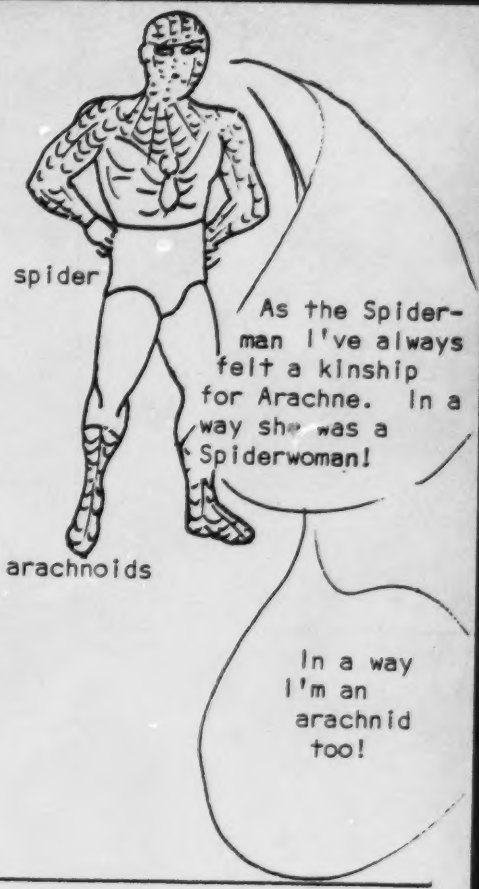
Duplicate and distribute the following programmed learning materials for the pupils:

Frame 25  	gods and goddesses, heroes, and the relationships between mortals and immortals.
# 26 The arachnoid membrane or arachnoides is a thin, delicate sheet that encloses the brain and spinal cord. It is named for Arachne, a young girl who once challenged the goddess Athena in a weaving contest. Copy the terms <u>arachnoid</u> <u>membrane</u> and <u>arachnoidea</u> on scrap paper for practice.	
#27 Athena was the warrior goddess of wisdom. She also enjoyed weaving. The city of Athens	

is named for Athena. Sometimes reading rooms or libraires are called atheneums after her. The Singer Sewing Machine Co. has a sewing machine named the Athena to commemorate her interest in _____.	sewing and weaving
# 28 In the contest Athena wove a tapestry showing the beautiful buildings on the Acropolis in Athens and the great Olympian gods seated on their thrones. She also wove scenes showing the punishments given to mortals who dared to challenge the _____.	gods
# 29 Arachne in her tapestry wove pictures of the gods in various disguises seducing mortal women. Athena became angry and tore the tapestry showing the crimes of the gods. With her shuttle she struck Arachne again and again. Arachne could not bear the punishment and she _____ _____.	
# 30 The Roman poet Ovid tells us that as Arachne hung there Athena felt pity and lifted her up saying: "Live wicked girl but hang forever and so that you may never feel secure in time to come, let this same punishment fall upon all your generations even to remote posterity". In the right hand column read what Athena said in Latin.	Vive quidem, pende tamen, improba... lexque eadem poenae ne sis secura futuri dicta tuo generi serisque nepotibus esto.

31 Athena then sprinkled Arachne with the magic juices of a herb and the girls body was changed into that of a _____.

spider



arachnoids

32

In addition to having the name of the arachnoid membrane or the arachnoidea from Arachne, we also have a scientific name for spiders from her. Scientist will sometimes refer to spiers as a _____.

33

Look into my eyes! The pigmented part of the eye between the pupil and the white of the eye is called the iris. It was named after the goddess of the rainbow whose name is I _____.

B. N. J.

iris

34

Iris was a goddess of many colors. She was a special messenger for the king and queen of the gods. Iris pays a role in the Roman poet Vergil's account of the death of the African queen Dido. Copy the following names on scrap paper for practice:

a. Iris

b. Vergil

c. Dido

Now match each of the following phrases with one of the names:

I Roman poet

II rainbow goddess

III African queen

Check your answers

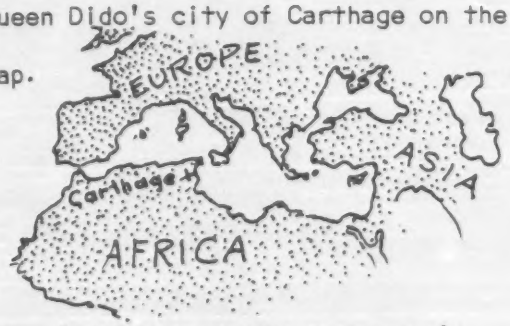
Iris - rainbow goddess

Vergil - Roman poet

Dido - African queen

35

Locate Queen Dido's city of Carthage on the little map.



Carthage is located in the northern part of _____.

Africa

36

Queen Dido's lover Aeneas had deserted her. In despair she attempted suicide. But her spirit would not leave her since suicides were not permitted to enter the realms of the dead unless a lock of hair were taken from their heads. Juno, the queen of the gods took pity on her and sent Iris down to release Dido's struggling soul from her body.

Copy the following names on your paper:

a. Dido

b. Aeneas

c. Juno

Now match each of the following phrases with one of the names:

I African queen

II queen of the gods

III Dido's lover

Dido - African queen

Aeneas - Dido's lover

Juno - queen of the gods

37

You will now read the beautiful poetry of Vergil where he describes how Iris helped Dido. The Latin of Vergil is given below. An English interpretation appears in the right-hand column:

Ergo Iris croceis per caelum roscida pinnis,
mille trahens varios adverso sole colores,
devolat et supra caput astitit: "Hunc ego Diti

sacrum jussa fero, teque isto corpore solvo"
sic ait et dextra crinem secat: omnis et una
dilapsus calor, atque in ventos vita recessit.

And Iris all covered with dew flew down from heaven on golden wings, trailing a thousand colors reflected in the rays of the sun and stood above her head.
"As I have been ordered I take this offering sacred to the death king and free you from your body".
So Iris spoke, and with her hand cut the lock of hair.
All of a sudden the warmth left her and life faded into the winds.

38

It's interesting to note that Iris also gave her name to a type of plant with long sword shaped leaves and variously colored flowers. The Iris plant usually grows from bulbs. Have you ever seen an iris plant?

There is no "correct" answer here.

39

There is a metal called iridium that takes its name from Iris. Copy the name of this metal for practice.

40

The name of Iris also gives us the following words: iridescent, iridic, iritis, iridectomy, iridium. Copy these words on your paper.

Double check to see that you spelled each word correctly.

41

Are these statements true or false? Check your answers.

An iridescent light produces lustrous, rainbowlike colors.

true

42

An iridic complication would be one of the eye.

true

43

There is a metal named for Iris called iridium.

true

# 44 Iritis is an inflamation of the iris of the eye.	true
# 45 Surgical removal of part of the iris of the eye is called iridectomy.	true
# 46 A couple of more examples of medical terms taken from mythology! An aphrodisiac is a love stimulant. It takes its name from A_____, the goddess of love.	Aphrodite
# 47 Another example is the Achilles' tendon. The Achilles'tendon is the heel named for the Greek hero Achilles. Write the name of the Greek hero on your paper.	
# 48 When Achilles was a baby his mother dipped him in the waters of the River Styx. Thus made him invulnerable except on his heel where he was held by his mother. It is appropriate then that a tendon in the heel be named after _____.	Achilles

49

Achilles eventually was killed through a wound in his heel. We used the expression "Achilles' heel" to mean a weak spot or defect. For instance, a battery that frequently failed to start an automobile could be referred to as the automobile's Achilles' heel. The love of cake and candy that a fat person has could be called the person's _____.

Achilles' heel

50

As we have seen, classical mythology is a fertile source of medical terminology. You may find it interesting to investigate the mythology behind the diseases or conditions listed in the right hand column. Prepare a brief report on each term explaining how it is used in modern medicine and the connection with ancient mythology.

labyrinthitis
hermaphroditism
Oedipus Complex
Electra Complex
morphinomania
eratphobia
narcissism

LESSON 12

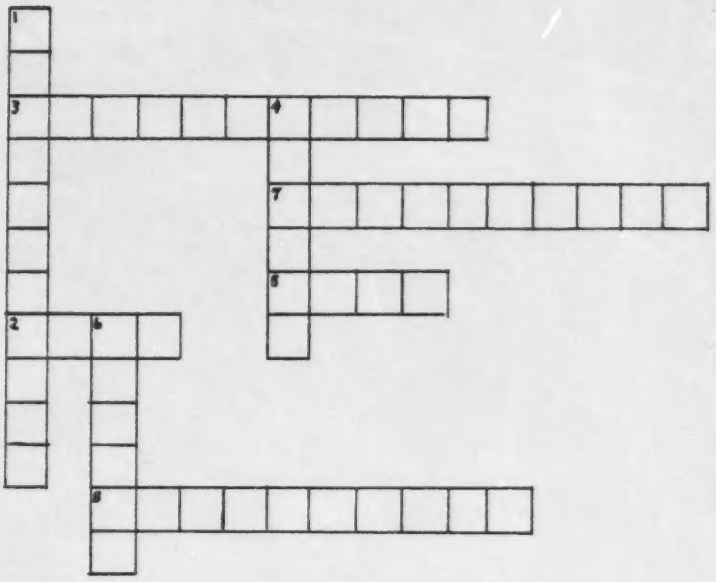
Objectives

1. To acquaint pupils with the caduceus and the staff of Aesculapius.
2. To review derivatives and cognates presented in the previous two lessons.

Activities

1. Distribute the following crossword puzzle. Have pupils work on it individually or as a class project.

Wordgame C



Down

1. another name for the arachnoid membrane
4. inflamation of the iris of the eye
6. relating to the iris of the eye

Across

2. part of the eye
3. love stimulant
5. plant with various colored flowers
7. surgical removal of part of the iris of the eye
8. producing rainbowlike, lustrous color

words used

arachnoidea
aphrodisiac
iridectomy
iris
iritis
iridic
iridescent

2. Show the pupils a drawing of the staff of Aesculapius. Ask pupils if they recognize it as a symbol of the medical profession. Point out that Aesculapius was the son of the god Apollo and a mortal woman. He became a physician who not only cured the sick but recalled the dead to life. Serpents were sacred to him because they were a symbol of renovation and were believed to have the power of discovering healing herbs. The king of the gods, Zeus, feared the powers of Aesculapius and killed him with a thunderbold. Apollo, the father of Aesculapius, arranged to have Aesculapius placed among the stars as a constellation. Aesculapius is also known by the name Asclepius or Asclepios.

3. Show the pupils a drawing of the caduceus of Mercury. Point out that Mercury was a messenger of the gods. His staff became a symbol of peace. Due to the story that Mercury once found two snakes fighting and divided them with his wand. The wings of Mercury (which also appear on his winged sandals as a symbol of speed) and the two snakes appear on the caduceus.

4. Ask the pupils if they have ever seen the caduceus or the staff of Aesculapius. Ask if they think these symbols are appropriate. Ask if they like these symbols.
5. Have the pupils draw the staff of Aesculapius and the caduceus of Mercury in their notebooks.

6. Aesculapius and Mercury may be made subjects of writing projects. Pupils could be asked to look up the various stories connected with these mythological figures in encyclopedias and handbooks on mythology. Pupils might be asked to react personally to the stories in terms of admiration, disgust, approval, disapproval, etc.

LESSON 13 (Unit Review)

Objectives

1. To review the Latin utterances presented in this unit.
2. To review the English derivatives and cognates presented in this unit.
3. To review some of the forms and use of the genitive case.
4. To review the cultural information presented in this unit.

Activities

Praenotandum: Due to the length of this unit more than one class period may be needed for review purposes. The amount of time needed will vary from class to class. In general it is suggested that a balance be maintained among the various elements of the unit, viz., Latin utterances and structure, English derivatives and cognates, and cultural information.

1. Using a stick figure drawing of the human body or a live pupils, review the Latin names of the parts fo the body. Use the word Ecce or the question Quid est? Such answers as caput, facies, pectus est, etc.
2. Have the pupils echo the Latin quotations presented in this unit:

Etiam capillus unus habet umbram suam. (Publilius Syrus)
Philosophum non facit barba. (Plutarch)
Non quaerit aeger medicum eloquentem. (Seneca)
Ars longa vita brevis. (Hippocrates)

You may have the song Ars longa sung.

Ask the pupils to give the meanings of the quotations in English.

3. Have the pupils write or give orally brief descriptions of the following persons or things:

Arachne	Hippocrates
Iris	caduceus
Aphrodite	staff of Aesculapius
Achilles	

4. Duplicate and distribute the following Word Games.

Wordgame D

Ms. Chulita is Dr. Romanus' new secretary. He is helping her with Latin medical terms and pharmaceutical abbreviations.

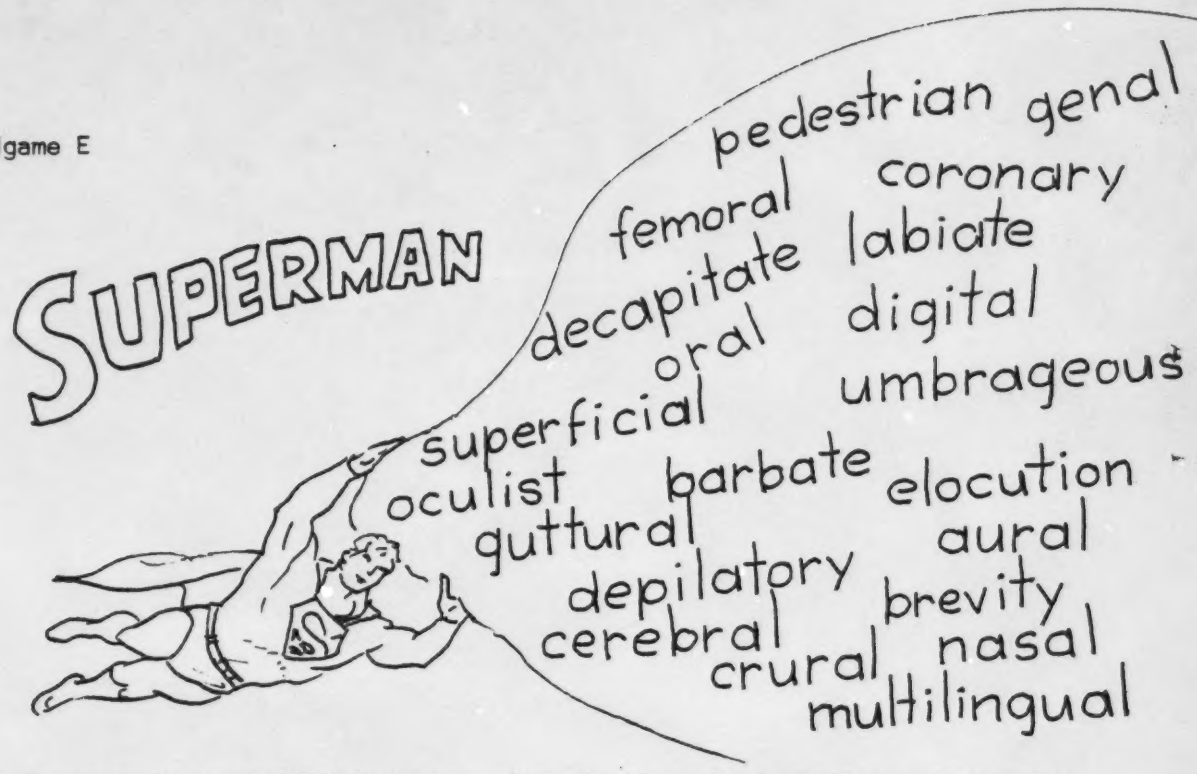
See if you can help them both by matching items in the left hand column with items in the right hand column.

1. a.c. (ante cibos) _____	A thrice a day
2. s̄ (sine) _____	B by the mouth
3. b.i.d. (bis in die) _____	C mix
4. t.i.d. (ter in die) _____	D without
5. p.o. (per os)	E before meals
6. m (misce) _____	F write
7. aq. (aqua) _____	G do not repeat
8. c̄ (cum) _____	H twice a day
9. p.r.n. (pro re nata) _____	I at bedtime
10 h.s. (hora somni) _____	J water
11 sig. (signa) _____	K with
12. non rep. (non repetatur) _____	L as needed

13. R_x (recipe) _____	A a drop
14. omn. 2 hr. (omni secunda hora) _____	B four times a day
15. add. (adde) _____	C take
16. abs. feb. (absente febre) _____	D every second hour
17. gtt. (guttae) _____	E add
18. ad. lib. (ad libitum) _____	F at pleasure
19. o.n. (omni nocte) _____	G immediately
20. q.s. (quantum sufficiat) _____	H fever being absent
21. o.m. (Omni mane) _____	I if necessary
22. s.o.s. (si opus sit) _____	J as much as needed
23. stat. (statim) _____	K every night
24. q.i.d. (quater in die) _____	L every morning

25. angina pectoris _____	A body of the stomach
26. rigor mortis _____	B painful spasm of the abdomen
27. angina abdominis _____	C painful spasm of the chest
28. pars retinae caeca _____	D the stiffness of death
29. corpus costae _____	E part of the retina that does not see
30. corpus uteri _____	F the body of the womb
31. latissimus dorsi _____	G widest muscle of the back
32. corpus ventriculi _____	H thigh
33. pars duodeni _____	I eye
34. femur _____	J body of the rib
35. oculus _____	K part of the duodenum
36. auris _____	L ear

Wordgame E



Help Superman to unload his huge bag of derivatives by inserting each one in the appropriate sentence. Latin roots are given in parentheses to help you. Cross each word out in the bag as you use it. Good luck!

1. Motorist must be aware of the rights of the _____. (PES)
2. A _____ infection would be an infection of the thigh. (FEMUR)
3. When a physician puts his finger inside the patient's mouth to examine it, he or she is making a _____ insertion. (DIGITUS)
4. Stress produces _____ problems. (COR)
5. It is not polite to _____ or spit on the subway. (PECTUS)
6. A minor wound may be described as _____. (FACIES)
7. A _____ wound would be a wound on the leg. (CRUS)
8. A hair remover like Nair is a _____. (CAPILLUS)
9. An _____ may be an ophthalmologist or an optometrist. (OCULUS)
10. An _____ infection is an infection of the ear. (AURIS)

11. Post _____ drip is a common problem. (NASUS)

12. _____ hair is hair on the cheek. (GENA)

13. The arrangement of the teeth in the mouth is called _____ (DENUS)

14. Something that is shaped like a lip may be called _____. (LABIUM)

15. Regular professional care is an important part of _____ hygiene. (OS)

16. The Incredible Hulk sometimes make _____ sounds. (GUTTUR)

17. An _____ tree can be very pleasant in the summer. (UMBRA)

18. The world uses many languages; it is _____. (LINGUA)

19. A man with a beard could be described as _____. (BARBA)

20. A tumor of the brain would be a _____tumor. (CEREBRUM)

21. Good _____ is important to a television personality. (ELOQUENTEM)

22. The Gettysburg Address is an example of great eloquence combined with _____. (BREVIS)

23. Sometimes it is necessary for an entomologist to _____ an insect when studying its physical makeup. (CAPUT)

LESSON 14 (Unit Review)

Objective

To evaluate pupil mastery of material covered in this Unit.

Activities

Distribute the following test and have pupils work on it during the class period. When you have corrected the test return it to the pupils and go over it question by question as necessary. Questions may be added to the following test in accordance with the emphasis placed on certain sections of the Unit by the teacher. Prompt return of the corrected test papers to the pupils is urged.

Examen Latinum

Nomen meum est _____.

Schola _____ Dic _____ mense _____ 19_____

I. Elige responsum correctum (circle the correct response)

1. Ecce _____!

A caput

B femur

C pes

2. Ecce _____

A manus est

B nasus est

C pectus est

3. Ecce _____

A manus est

B gena est

C os est

4. Etiam capillus unus, _____

A rigor mortis

B habet umbram suam

C guttur est

5. Non quaerit aeger,_____

A medicum eloquentem

B vita brevis

C barba

6. Ars longa, _____

A vita brevis

B lingua

C omni tertia hora

7. Philosophum non

Facit _____

A. barba

B absente febre

C dispensa

8. a.c. =

A ante cibos

B aqua

C ad libitum

9. p.o. =

A post cibos

B pro re nata

C per os

10. o.m. =

A omni nocte

B omni mane

C omni secunda hora

II Pone lineam sub formas casi genetivi
(Underline words which are in the genitive case)

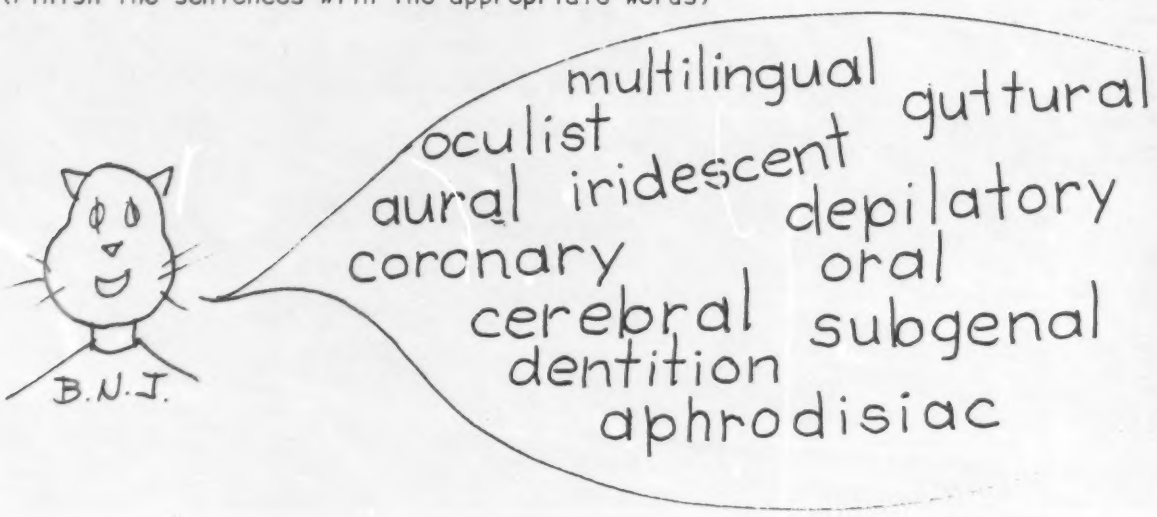
11. pars retinae caeca

12. rigor mortis

13. angina pectoris

III Fini sententias verbis aptis.

(Finish the sentences with the appropriate words)



14. Philadelphia is a _____ city, that is, a city where many languages are used.
15. An optometrist is an _____.
16. A _____ disease is serious since it concerns the heart.
17. Braces will correct faulty _____.
18. A hair remover is called a _____.
19. _____ sounds are made from the throat.
20. Brushing your teeth is an important part of good _____ hygiene.
21. Keeping your ears clean is important for good _____ hygiene.
22. Leaves shaped like lips may be described as _____.
23. A _____ hemorrhage is serious because it damages the brain.
24. A _____ infection is one under the cheek.
25. A tee-shirt that glows in the dark may be called _____.
26. A love stimulant is an _____.

IV Responde quaestionibus (Answer these questions.)

27. Why is it appropriate that the arachnoid membrane is named for Arachne?

28. What is the caduceus?

29. Who was Hippocrates?

30. How did Iris help the African queen Dido?

APPENDIX - ANNOTATED BIBLIOGRAPHY

Praenotandum: Only works which are currently in print and readily available are listed here either for teacher reference and/or for use by students who have completed the lessons given in this Guide.

■ Genevieve Love Smith and Phyllis E. Davis
Medical Terminology: A Programmed Text, 4th edition,
John Wiley & Sons, Inc., 605 Third Ave., New York City 10154 (1981, pp.325).

This auto-instructional text is designed to help students to recognize medical words from their Latin and Greek elements and to build medical words from Latin roots and combining forms. It is also designed to encourage correct spelling of medical words and the the intelligent use of a medical dictionary. The text is intended for future nurses, medical secretaries, medical technologists, medical librarians, veternarians, physicians of various kinds, and business people who have frequent contact with the world of medicine. The authors say that they presuppose a high school education. They provide sections on how to work the programmed materials, the word building system, and how to study medical terminology. Tests and review sheets are provided. Answers to all frames appear in the left hand, blue-shaded column. Some illustrations (mostly anatomical) are provided. Greek and Latin are freely mixed and the combining forms actually occuring in medical terminology are emphasized rather than the actual Greek or Latin words.

This book is a useful reference for teachers who wish to expand their knowledge of medical Greek and Latin. It may also be used by high school students who have completed Latin, the Language of Health Sciences published by the Curriculum Office.

The publisher supplies examination copies to those sending in requests on school letterhead.

■ Oscar E. Nybakken, Latin and Greek in Scientific Terminology, The Iowa State University Press, 2121 S. State St., Ames , Iowa 50010 (1968,pp. 321)

This text includes discussions of the characterisitics of scientific nomenclature, the use of the vernacular in scientific language, and the use of Latin and Greek. The inflections of Greek and Latin words are presented where these inflections are useful in scientific terminology. Attention is given to pronunciation, transliteration, combinining rules, Hybrid words, and eponyms are among the topics treated. There is an interesting section on scientific malformations and misnomers. Official international codes and rules on nomenclature in medicine, anatomy, diseases and operations, bacteriology dentistry, zoology and botany are summarized.

Though written with college students in mind, this book is valuable as a teacher reference and would be a useful addition to a classroom library for pupil use.

■ Charles W. Dunmore and Rita M. Fleischer, Medical Terminology: Exercices in Etymology, F.A. Davis Company, 1915 Arch St., Philadelphia 19103 (1977, pp. 327)

This combination textbook-workbook starts with a discussion of Greek nouns, adjectives, and verbs, and then proceeds to treat Latin nouns, adjectives, and verbs.There are individual lessons on the cardiovascular system, the respiratory system, the digestive system, hematology, ophthalmology, gynecology, urology, and the lymphatic system. There are appendices on the development of the English language, New Latin, and the ancient medical writers.

The attention that this book gives to classical literature and ancient history in its treatment of scientific terminology make it especially interesting and valuable. For instance, in explaining the term hermaphrodite, the book quotes in extenso Ovid's account of Hermaphroditus in the Metamorphoses 4.368 et seq.This book would be a good follow-up for Latin, the Language of Health Sciences for advanced students.

■ Donald M. Ayers, Bioscientific Terminology: Words from Latin and Greek Stems, The University of Arizona Press, Tucson, Arizona (1977, pp.325)

This book is divided into two parts, one devoted to Greek and one to Latin. Only the roots themselves are presented as distinguished from the actual Latin or Greek word.Thus a form such as SPIR- is taught rather than the full Latin word SPIRARE or SPIRO.

The book consists mainly of word lists grouped according to the Latin or Greek root. Thus under the root SPIR) the terms aspirator, transpiration, suspiration, and spiromenter are explained. The book would be valuable for classroom reference.

■ Taber's Cyclopedic Medical Dictionary, ed. 12, F.A. Davis Company, 1915 Arch St., Philadelphia 19103 (1975)

A standard medical dictionary that is very useful to teacher and student alike. Words are listed alphabetically with full etymologies.

EVALUATION FORM for CURRICULUM PUBLICATIONS
(Form FL 75)

TO THE TEACHER:

In order to make sure that possible future editions of this publication are of maximum usefulness to you, your suggestions for its improvement would be appreciated. Please fill out this Evaluation Form (or facsimile) after you have used the publication long enough to form a judgment about it. Please send the Evaluation Form to:

Dr. Rudolph Masciantonio
Ass't. Director of Foreign Language Education
The School District of Philadelphia
21st and Parkway
Philadelphia, PA 19103

Thank you very much for your help. Please note that student reaction where appropriate is also very welcome.

Name of Publication _____

How has this publication helped you in your instructional program? _____

What aspects did you find most helpful? _____

In what ways could this publication be made more helpful? _____

Did you notice any errors (typographical or otherwise)? If so, please list. _____

What materials related to this publication would you like to see made available to you? _____

Your Name (Optional) _____ Date _____

School _____ Subdistrict _____

Form FL 75 - Evaluation Form for Curriculum Publications
Division of Foreign Language Education, Phila. School District